1252 Quarry Lane P.O Box 9019 Pleasanton, CA 94566 (510) 426-2600 Fax (510) 426-0106



October 5, 1992

Clayton Project No. 39744.00

Ms. Juliett Shin Senior Hazardous Materials Specialist Alameda County Health Agency 80 Swan Way, Room 200 Oakland, California 94261

Dear Ms. Shin:

As you requested in your telephone conversation on October 2, 1992, with Dariush Dastmalchi, Clayton Environmental Consultants, Inc. is pleased to submit a copy of our quarterly status report for the South Shore Shopping Center in Alameda, California. This report describes the work completed during the first quarterly period of year 1992.

If you have any questions, please call me at (510) 426-2676 or Mr. Dariush Dastmalchi at (510) 426-2609.

Sincerely,

Alan D. Globs, R.G. Supervisor, Geology Western Operations

ADG/dd

Enclosures

1252 Quarry Lane P.O. Box 9019 Pleasanton, CA 94566 (510) 426-2600 Fax (510) 426-0106 Clayton ENVIRONMENTAL CONSULTANTS

April 7, 1992

Clayton Project No. 39744.00

Mr. Michael Dosen HARSCH INVESTMENT CORPORATION 235 W. MacArthur Blvd., Suite 630 Oakland, CA 94611

Subject: Quarterly Status Report for

South Shore Shopping Center Park Street and Shoreline Drive

Alameda, California

Dear Mr. Dosen:

Clayton Environmental Consultants, Inc. is pleased to provide you with an update for the activities performed on the Harsch Investment property during the first quarterly period of year 1992. This letter describes the work completed and in progress as originally outlined in our revised proposal dated March 11, 1992. The subject property is located at the corner of Park Street and Shore Line Drive (South Shore Shopping Center) in Alameda, California. All work involved was associated with the former dry cleaning facility.

· 1/4

On February 20, 1992, Mr. Dariush Dastmalchi, Clayton Geologist, contacted the Alameda County Health Department (ACHD) to discuss the future activities planned for the subject property. During this discussion, Mr. Dennis Byrne of ACHD agreed to accept a work plan for remediation of groundwater contamination beneath the former dry cleaning site. This work plan will essentially replace the feasibility study that we originally planned for the site.

On February 24, 1992, Clayton supervised the installation of seven 2-inch monitoring wells (MW-15, MW-16, MW-17, MW-18, MW-19, MW-20 and MW-21). These wells were installed to better assess the vertical and horizontal extent of chlorinated hydrocarbon contamination in groundwater beneath the former dry cleaning site (Figure 1). Being that we are tracking chlorinated hydrocarbons (sinkers), these wells were bottom screened and anchored in a clay layer with the exception of monitoring well MW-20, which was screened throughout the groundwater intercept to assess possible contamination overlap with the Chevron carwash.

Groundwater samples were collected from wells MW-7B, MW-8B, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, and MW-21, and analyzed by the following methods:



Mr. Michael Dosen Harsch Investment Corporation April 7, 1992 Page 2 Clayton Project No. 39744.00

- Environmental Protection Agency (EPA) Method 8020 for benzene, toluene, ethylbenzene and xylene (BTEX)
- EPA Method 601 for purgeable halocarbons

A groundwater sample from monitoring well MW-7B was also analyzed for general minerals, total dissolved solids, total solids, bromide, fluoride, nitrates and nitrites. These additional analyses will be used for the design of the remediation system (Attachment).

The enclosed table compares groundwater analytical results for the organic compounds from the November 1991 quarterly sampling event to the recent March 1992 sampling event. Regulatory guidelines are also listed for comparison. Only compounds that were detected in a sample from at least one of the wells are included in the table. All other organic compounds for which analyses were conducted were below detection limits (Attachment).

In the recent March 1992 groundwater sampling from monitoring well MW-7B, analysis revealed 390 micrograms per liter ($\mu g/l$) trichloroethene, and 3,200 $\mu g/l$ tetrachloroethene. Note: This is an approximate 50% drop in concentrations from the November 1991 quarterly sampling event.

The March 1992 groundwater sample from monitoring well MW-8 contained 7.9 μ g/l cis-1,2-dichloroethene, and 13 μ g/l trichloroethene. These are approximately the same concentrations as detected in November 1991.

The concentration of chlorinated hydrocarbons in groundwater samples from monitoring wells MW-7B and MW-8B exceeded regulatory guidelines for drinking water, as listed in the table.

Analysis of the sample from MW-16 revealed a 1,1,1-trichloroethane concentration of 1.1 µg/l. However, the concentration of this compound is well below the MCL for drinking water (Table). Laboratory analysis from groundwater samples from MW-15, MW-17, MW-18, MW-19, MW-20 and MW-21 did not reveal any hydrocarbon concentration at or above analytical detection limits.

Based on the well spacing and analytical reports, the chlorinated hydrocarbon groundwater contamination plume is confined to the former dry cleaning site. No overlap in the chlorinated hydrocarbon contamination is apparent with the adjacent Chevron or former Texaco sites. The highest chlorinated hydrocarbon concentration is around monitoring well MW-7B.

Currently Clayton is conducting an aquifer characterization study by extracting groundwater from MW-7B. This study is to determine the hydraulic parameters

39744-00 26



Mr. Michael Dosen Harsch Investment Corporation April 7, 1992 Page 3 Clayton Project No. 39744.00

including the amount of water the site may generate around MW-7B, and the effect over time (1 to 3 weeks) this pumping will have on chlorinated hydrocarbon concentrations.

From March 23 to April 3, 1992, we pumped about 13,000 gallons of groundwater from monitoring well MW-7B.

On March 31, 1992, a groundwater sample collected from monitoring well MW-7B showed a reduction in the following compounds:

Contaminant	Before Pumping	After Pumping
Tetrachloroethene	3,200 µg/L	1,100 µg/L
Trichloroethene	390 μg/L	290 μg/L
Cis-1,2-dichloroethene	<40 μg/L	60 μg/L

We are currently evaluating the data for remediation design and costing out disposal permit requirements and options.

If you need any additional information or clarification, please advise. Upon receipt of your written or verbal authorization, we will forward a copy of this report to the Alameda County Health Department and Regional Water Quality Control Board.

Sincerely,

Alan D. Gibbs, R.G. Supervisor, Geology Western Operations

ADG/dd

cc: Mr. Roy Ikeda Mr. Rick Warren



Mr. Michael Dosen Harsch Investment Corporation April 7, 1992 Page 4 Clayton Project No. 39744.00

Summary of Analytical Results for Quarterly Groundwater Sampling at

South Shore Center Park Street and Shoreline Drive Alameda, California

March 1992

All Concentration in micrograms per liter (µg/l)

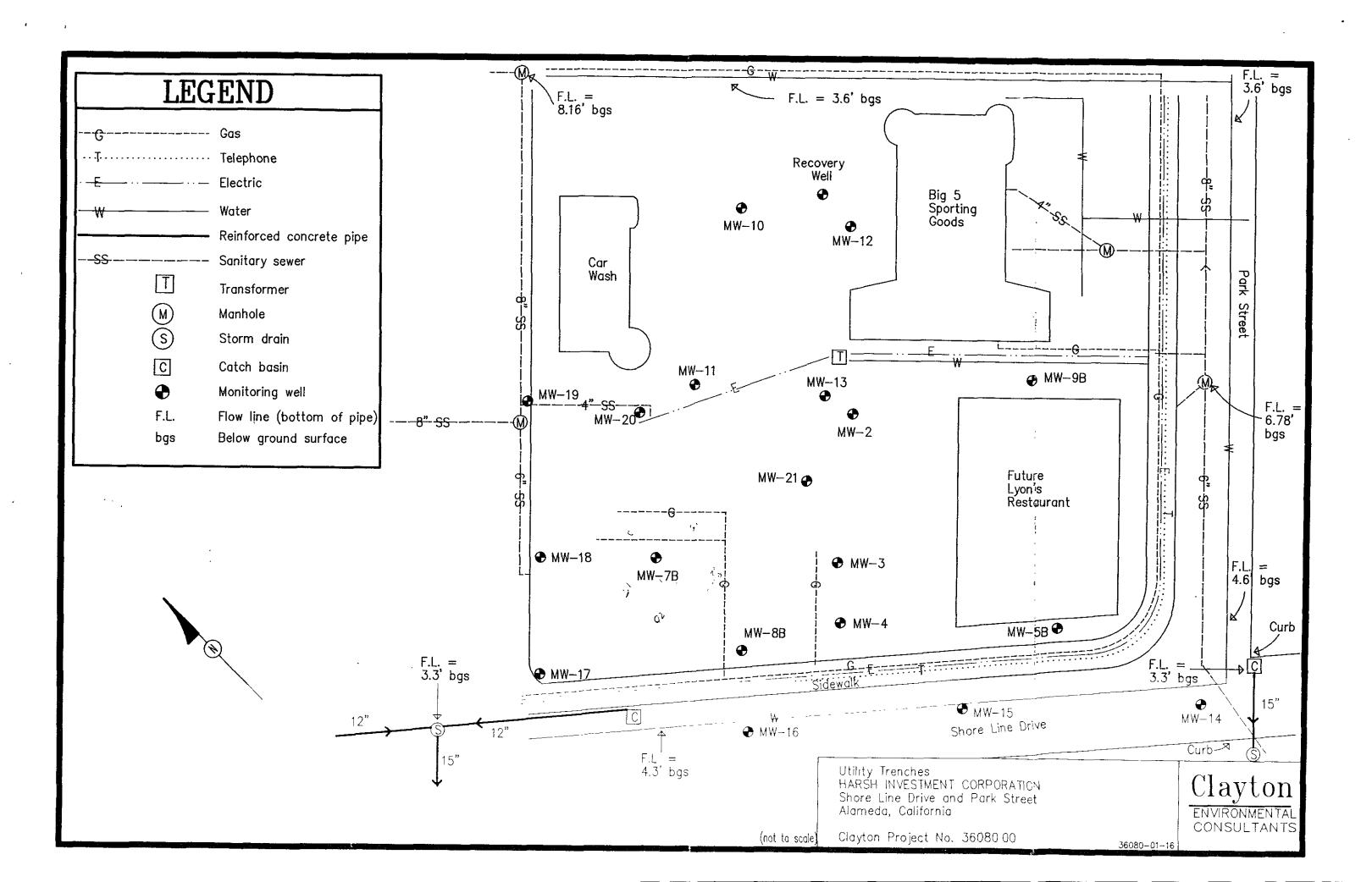
Chemical	MV	V-7B	MW	/-8B	MV	V-16	MCL
EP	A Method	601 for l	urgeable	: Haloca	rbons:		
DATE COLLECTED	3-92	11-91	3-92	11-91	3-92	11-91	
Tetrachloroethene	3,200	6,600	<0.5	5 [<0.5	N/A	5
Trichloroethene	390	700	13.	12	<0.3	N/A	5
Cis-1,2-Dichloroethene	<40	140	7.9	6.3	<0.4	N/A	_6
1,1,1-Trichloroethane	<50	<50	0.5	<50	1.1	N/A	200

<0.3 = less than detection limit

N/A = Not available

MCL = Maximum Contaminant Levels for Drinking Water Standards

MCL are taken from Jon B. Marshack's, A Compilation of Water Quality Goals, October 1990, published by Regional Water Quality Control Board Central Valley Region.





ATTACHMENT

1252 Quarry Lane P.O. Box 9019 Pleasanton, CA 94566 (510) 426-2600 Fax (510) 426-0106



March 16, 1992

Mr. Dariush Dastmalchi CLAYTON ENVIRONMENTAL CONSULTANTS, INC. 1252 Quarry Lane Pleasanton, CA 94566

> Client Ref. 39744.00 Clayton Project No. 92030.66

Dear Mr. Dastmalchi:

Attached is our analytical laboratory report for the samples received on March 5, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH

Director, Laboratory Services

Michael Lynch for

Western Operations

RHP/tb

Attachments



Page 2 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-7

Lab Number: 9203066-01F

Sample Matrix/Media: WATER

Preparation Method: EPA 5030

Date Sampled: 03/05/92

Date Received: 03/05/92

Date Prepared: 03/10/92

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes		ИD	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline		ИD	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluene	98-08-8	125	50 - 150

ND Not detected at or above limit of detection -- Information not available or not applicable



Page 3 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Date Sampled: 03/05/92 Sample Identification: MW-15 Date Received: 03/05/92 9203066-02A Lab Number: Date Prepared: 03/11/92 WATER Sample Matrix/Media: 03/11/92 Date Analyzed: Preparation Method: EPA 5030 EPA 8015/8020 Analytical Method:

Limit of Detection Concentration CAS # (ug/L) (ug/L) Analyte BTEX/Gasoline 0.4 71-43-2 ND Benzene 0.3 108-88-3 ND Toluene 0.3 100-41-4 ND Ethylbenzene ND 0.4 p,m-Xylenes 0.4 95-47-6 ND o-Xylene 50 ND Gasoline SURROGATE RECOVERY (%) LIMITS (%) 50 - 15098-08-8 100 a,a,a-Trifluorotoluene

ND Not detected at or above limit of detection -- Information not available or not applicable



Page 4 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-16

Lab Number: 9203066-03A

Sample Matrix/Media: WATER

Preparation Method: EPA 5030

Date Sampled: 03/05/92

Date Received: 03/05/92

Date Prepared: 03/12/92

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes		ND	0.4
o-Xylene	95-47 - 6	ND	0.4
Gasoline		ND	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluene	98-08-8	109	50 - 150

ND Not detected at or above limit of detection -- Information not available or not applicable



Page 5 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Date Sampled: 03/05/92 Sample Identification: MW-8 Date Received: 03/05/92 9203066-04A Lab Number: Date Prepared: 03/11/92 Sample Matrix/Media: WATER Date Analyzed: 03/11/92 EPA 5030 Preparation Method: EPA 8015/8020 Analytical Method:

CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
71-43-2	ND	0.4
108-88-3	ND	0.3
100-41-4	ND	0.3
	ND	0.4
95-47-6	ND	0.4
	ИD	50
	RECOVERY (%)	LIMITS (%)
98-08-8	101	50 - 150
	71-43-2 108-88-3 100-41-4 95-47-6	T1-43-2 ND 108-88-3 ND 100-41-4 ND ND 95-47-6 ND ND RECOVERY (%)

ND Not detected at or above limit of detection -- Information not available or not applicable



of 18 Page 6

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203066-07A

Date Received:

Sample Matrix/Media: Preparation Method:

WATER EPA 5030

Date Prepared: 03/11/92 Date Analyzed: 03/11/92

Analytical Method:

EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes		ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline		ND	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluene	98-08-8	98	50 - 150

ND Not detected at or above limit of detection Information not available or not applicable



Page 7 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-7

14M - /

Date Sampled: 03/05/92

Lab Number:

9203066-01H

Date Received: 03/05/92

Sample Matrix/Media:

WATER

Date Analyzed: 03/06/92

Analytical Method: EPA 601

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	60
Bromomethane	74-83-9	ND	70
Vinyl chloride	75-01-4	ND	50
Chloroethane	75-00-3	ND	50
Methylene chloride	75-09-2	ND	200
1,1-Dichloroethene	75-35-4	ND	20
1,1-Dichloroethane	75-35-3	ND	40
Trans-1,2-Dichloroethene	156-60-5	ND	40
Cis-1,2-Dichloroethene	156-59-2	ND	40
Chloroform	67-66-3	ND	50
1,2-Dichloroethane	107-06-2	ND	30
1,1,1-Trichloroethane	71-55-6	ND	50
Carbon tetrachloride	56-23-5	ND	60
Bromodichloromethane	75-27-4	ND	70
1,2-Dichloropropane	78-87-5	ND	50
Cis-1,3-Dichloropropene	10061-01-5	ND	50
Trichloroethene	79-01-6	390	30
Dibromochloromethane	124-48-1	ND	60
1,1,2-Trichloroethane	79-00-5	ND	60
Trans-1,3-Dichloropropene	10061-02-6	ND	60

ND Not detected at or above limit of detection -- Information not available or not applicable

Note: Detection limits increased due to dilution necessary for

quantitation



Page 8 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-7

Lab Number:

9203066-01H

Date Sampled: 03/05/92 Date Received: 03/05/92

Sample Matrix/Media:

WATER

Date Analyzed: 03/06/92

Analytical Method:

EPA 601

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (contin	ued)		
2-Chloroethylvinylether	110-75-8	ND	100
Bromoform	75-25-2	ND	70
Tetrachloroethene	127-18-4	3,200	50
1,1,2,2-Tetrachloroethane	79-34-5	ND	50
Chlorobenzene	108-90-7	ND	70
1,3-Dichlorobenzene	541-73-7	ND	200
1,2-Dichlorobenzene	95-50-1	ND	400
1,4-Dichlorobenzene	106-46-7	ND	400
Dichlorodifluoromethane	75-71-8	ND	100
Trichlorofluoromethane	75-69-4	ND	40
Freon 113	76-13-1	ND	60
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	106	50 - 150

ND Not detected at or above limit of detection -- Information not available or not applicable

Note: Detection limits increased due to dilution necessary for quantitation



Page 9 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-15

Date Sampled:

03/05/92

Lab Number:

9203066-02C

Date Received:

03/05/92

Sample Matrix/Media:

WATER

Date Analyzed:

03/06/92

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	- Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection ND Information not available or not applicable



Page 10 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-15

Date Sampled:

03/05/92 03/05/92

Lab Number:

9203066-02C

Date Received: Date Analyzed:

03/06/92

Sample Matrix/Media: Analytical Method:

WATER

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (contin	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4 4 1
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	108	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 11 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-16

Date Sampled:

03/05/92

Lab Number:

9203066-03C

Date Received:

03/05/92

Sample Matrix/Media: Analytical Method:

WATER EPA 601 Date Analyzed: 03/06/92

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74 - 87-3	ND	0.6
Bromomethane	74-83-9	ND .	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	1.1	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection ND Information not available or not applicable



Page 12 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-16

Date Sampled: 03/05/92

Lab Number:

9203066-03C

Date Received: 03/05/92

Sample Matrix/Media:
Analytical Method:

WATER

03/06/92 Date Analyzed:

				Concentrati	_
				 <u></u>	_
Analytical	Method:	EPA	601		
	· - · · · · · · · · · · · · · · · · · ·				

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (contin	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	114	50 - 150

ND Not detected at or above limit of detection Information not available or not applicable



Page 13 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-8

Date Sampled:

03/05/92

Lab Number:

9203066-04C

Date Received:

03/05/92

Sample Matrix/Media: Analytical Method:

WATER

Date Analyzed:

03/06/92

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	7.9	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ИD	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	13	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

ND Not detected at or above limit of detection Information not available or not applicable



Page 14 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-8

Date Sampled: 03/05/92

Lab Number:

9203066-04C

Date Received: 03/05/92

Sample Matrix/Media:

WATER

Date Analyzed: 03/06/92

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%)LCL UCL
Bromochloromethane	74-97-5	125	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 15 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: METHOD BLANK

9203066-07A

Date Sampled:

Lab Number:

Date Received: --

WATER

Date Analyzed: 03/06/92

Sample Matrix/Media: Analytical Method:

Analyte	CAS #	Concentration (ug/L)	-Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection ND Information not available or not applicable



Page 16 of 18

03/06/92

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203066-07A

Date Received:

Date Analyzed:

Sample Matrix/Media: Analytical Method:

WATER EPA 601

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (contin	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
			QC Limits (%)
Surrogates		Recovery (%)	LCL UCL
Bromochloromethane	74-97-5	108	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 17 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: MW-7

Lab Number:

9203066-01

Sample Matrix/Media:

WATER

Date Sampled: 03/05/92 Date Received: 03/05/92

		Detection		Date	Date	Prep	Analysis
Analyte	Concentration	Limit	Units	Prepared	Analyzed	Method	Method
Alkalinity, Tot. (CaCO3)	360	5	mg/L		03/10/92		EPA 310.1
Bicarbonate (as CaCO3)	360	5	mg/L		03/10/92		EPA 310.1
Bromide	0.2	0.1	mg/L		03/10/92		SM 4500B
Calcium	15	0.1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Carbonate (as CaCO3)	<5	5	mg/L		03/10/92		EPA 310.1
Chloride	130	1	mg/L		03/11/92		EPA 325.2
Copper	0.01	0.01	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Fluoride	0.98	0.05	mg/L		03/11/92		EPA 340.2
Hardness (as CaCO3)	74	1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Hydroxide (as OH)	⟨ 5	5	mg/L		03/10/92		EPA 310.1
Iron	0.69	0.05	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Magnesium	, 8.9	0.1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Manganese	0.04	0.01	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Nitrate-N	<0.05	0.05	mg/L		03/06/92		EPA 353.2
Nitrite-N	<0.05	0.05	mg/L		03/06/92		EPA 353.2
pH	7.9		s.u.		03/05/92		EPA 150.1
Sodium	180	1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7
Specific Conductance	1,400	1	umhos/cm		03/10/92		EPA 120.1
Sulfate	200	2	mg/L		03/11/92		EPA 375.2
Surfactants (MBAS)	0.04	0.02	mg/L		03/06/92		EPA 425.1
Total Dissolved Solids	900	10	mg/L		03/06/92		EPA 160.1
Total Solids	950	10	mg/L		03/13/92		EPA 160.3
Zinc	0.02	0.01	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7

ND Not detected at or above limit of detection

Not detected at or above limit of detection

⁻⁻ Information not available or not applicable



Page 18 of 18

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92030.66

Sample Identification: METHOD BLANK

Lab Number:

9203066-07

Sample Matrix/Media:

WATER

Date Sampled:

Date Received: --

		Detection	<u> </u>	Date	Date	Prep	Analysis	
Analyte	Concentration	Limit	Units	Prepared	Analyzed	Method	Method	
Alkalinity, Tot.(CaCO3)	<5	5	mg/L	_	03/10/92		EPA 310.1	
Bicarbonate (as CaCO3)	<5	5	mg/L		03/10/92	-	EPA 310.1	
Bromide	<0.1	0.1	mg/L		03/10/92		SM 4500B	
Calcium	<0.1	0.1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Carbonate (as CaCO3)	<5	5	mg/L		03/10/92		EPA 310.1	
Chloride	<1	1	mg/L		03/11/92		EPA 325.2	
Copper	<0.01	0.01	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Fluoride	<0.05	0.05	mg/L		03/11/92		EPA 340.2	
Hardness (as CaCO3)	<1	1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Hydroxide (as OH)	<5	5	mg/L		03/10/92		EPA 310.1	
Iron	<0.05	0.05	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Magnesium	<0.1	0.1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Manganese	<0.01	0.01	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Nitrate-N	<0.05	0.05	mg/L	_	03/06/92		EPA 353.2	
Nitrite-N	<0.05	0.05	mg/L		03/06/92		EPA 353.2	
Sodium	<1	1	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.7	
Specific Conductance	<1	1	umhos/cm		03/10/92		EPA 120.1	
Sulfate	<2	2	mg/L		03/11/92		EPA 375.2	
Surfactants (MBAS)	<0.02	0.02	mg/L		03/06/92		EPA 425.	
Total Dissolved Solids	<10	10	mg/L		03/06/92		EPA 160.	
Total Solids	<10	10	mg/L		03/13/92		EPA 160.3	
Zinc	<0.01	0.01	mg/L	03/09/92	03/11/92	EPA 200.7	EPA 200.	

Not detected at or above limit of detection ND

Not detected at or above limit of detection

Information not available or not applicable



REQUEST FOR LABORATORY **ANALYTICAL SERVICES**

For Clayton Use Only	Page	of	<u>- L-</u>
Project No.			
Batch No. 920	03066		
Client No.			
a	72-12	ΔZ	··

6/90

(313) 344-1770

(201) 225-6040

A Marsh & McLennan Company									Cile	nt No.					_	
									Date	Logg	ed In	3 5	752	- B₁	P	gr.
2 Name Darrush Dastmalchi	Title		i	Purch	ase Ord	ier No					Clie	nt Job	No.			
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Date Results Required: Rush Charges Authorized?		r Carripie.	s are: f applicable)	Containers	(Enter	an 'X'	in the	box be	ANA low to	ALYSI indica	te requ	DUEST uest; E	nter a			vative added.
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(Client Signature Must Accompany	Request)			1	HOL	b 7	ETAL	PHO	5110	1:115	. /	France	121- A	11/11	?the	Morphate
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Novi, MI 48375 160 Fieldcrest Ave.	Suite 490		P	leasan	ton, CA	9456	6					•	YELL	LOW -	Clay	ton Accounting
(313) 344-1770 Edison, NJ 08837	Kennesaw, GA	30144	(4	115) 42	6-2600						•		PINK	. •	Clien	it Copy

(404) 499-7500



REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton	Use Only Page 2 of 2
Project No.	
Batch No.	9203066
Client No.	
Date Logge	d in 3 5 92 By Ran
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Explanation of Preservative $P=Hel$				of New Y	ork	Number of Co	/	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			//	//	//	/,	/,	//	FOR LAB
CLIENT SAMPLE IDENTIFICATION		TE PLED	MATRIX/ MEDIA				√ %	之		Z_	\angle	_	_	_	_	<u>_</u>	USE ONLY
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OF Relinquished by: Date/Time						Rec	eived a	t Lab b	y Ko	Ruch	6A	Ch	as	THE.		Day	3/92 4:45
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Authorized by: M. Spangman Date 3-5-92 (Client Signature Must Accompany Request)																	
Please return completed form and samples to one of th	Please return completed form and samples to one of the Clayton Environmental Consultants, In						listed	below:							DISTR	IBUTI	ON:

22345 Roethel Drive Novi, MI 48375 (313) 344-1770

Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837 (201) 225-6040

400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144

(404) 499-7500

1252 Quarry Lane Pleasanton, CA 94566 (415) 426-2600

6/90

WHITE - Clayton Laboratory YELLOW - Clayton Accounting - Client Copy PINK

1252 Quarry Lane P.O. Box 9019 Pleasanton, CA 94566 (510) 426-2600 Fax (510) 426-0106



March 13, 1992

Mr. Dariush Dastmalchi CLAYTON ENVIRONMENTAL CONSULTANTS, INC. 1252 Quarry Lane Pleasanton, CA 94566

> Client Ref. 38379.00 Clayton Project No. 92030.86

Dear Mr. Dastmalchi:

Attached is our analytical laboratory report for the samples received on March 6, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH

Director, Laboratory Services

nichael hymch to

Western Operations

RHP/tb

Attachments



of 19 Page 2

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-17

Date Sampled: 03/06/92

Lab Number:

9203086-01C

Date Received: 03/06/92 03/09/92 Date Analyzed:

Sample Matrix/Media: Analytical Method:

WATER EPA 601

Limit of Detection Concentration (ug/L) CAS # (ug/L) Analyte Purgeable Halocarbons 74-87-3 ND 0.6 Chloromethane 0.7 ND 74-83-9 Bromomethane ND 0.5 75-01-4 Vinyl chloride 0.5 75-00-3 ND Chloroethane 75-09-2 ND 2 Methylene chloride 75-35-4 ND 0.2 1,1-Dichloroethene 0.4 75-35-3 ND 1,1-Dichloroethane 0.4 156-60-5 ND Trans-1,2-Dichloroethene 0.4 ND Cis-1,2-Dichloroethene 156-59-2 0.5 Chloroform 67-66-3 ND ND 0.3 1,2-Dichloroethane 107-06-2 0.5 71-55-6 ND 1,1,1-Trichloroethane 0.6 Carbon tetrachloride 56-23-5 ND 0.7 ND Bromodichloromethane 75-27-4 0.5 78-87-5 ND 1,2-Dichloropropane 0.5 Cis-1,3-Dichloropropene ND 10061-01-5 0.3 Trichloroethene 79-01-6 ND 0.6 124-48-1 ND Dibromochloromethane 0.6 1,1,2-Trichloroethane 79-00-5 ND 0.6 10061-02-6 ND Trans-1,3-Dichloropropene

Not detected at or above limit of detection ND Information not available or not applicable



Page 3 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-17 Lab Number: 920308

9203086-01C

Date Sampled: 03/06/92 Date Received: 03/06/92

Sample Matrix/Media:

WATER

Date Analyzed: 03/09/92

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4 4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	~ 0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	110	50 - 150

ND Not detected at or above limit of detection -- Information not available or not applicable



Page 4 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-18

Date Sampled:

03/06/92

Lab Number:

9203086-02C

Date Received:

03/06/92

Sample Matrix/Media:

WATER

Date Analyzed:

03/09/92

Analytical Method:

Analyte	cas #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ИD	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection ND Information not available or not applicable



of 19 Page 5

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-18

Date Sampled:

03/06/92

Lab Number:

9203086-02C

Date Received:

03/06/92 03/09/92

Sample Matrix/Media: Analytical Method:

WATER EPA 601

Date Analyzed:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75 - 69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
			QC Limits (%)
Surrogates		Recovery (%)	LCL UCL
Bromochloromethane	74-97-5	118	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 6 of 19

Results of Analysis for Harsch Investments

38379.00 Client Reference: Clayton Project No. 92030.86

Sample Identification: MW-19

1,1,2-Trichloroethane

Trans-1,3-Dichloropropene

Date Sampled:

03/06/92

Lab Number:

9203086-03C

Date Received: Date Analyzed:

ND

ND

03/06/92 03/09/92

0.6

0.6

Sample Matrix/Media: Analytical Method:

WATER EPA 601

Limit of Detection Concentration (ug/L) CAS # (ug/L) Analyte Purgeable Halocarbons 0.6 74-87-3 ND Chloromethane 0.7 Bromomethane 74-83-9 ND 0.5 75-01-4 ND Vinyl chloride 0.5 75-00-3 ND Chloroethane 2 Methylene chloride 75-09-2 ND 0.2 75-35-4 ND 1,1-Dichloroethene 75-35-3 ND 0.4 1,1-Dichloroethane 0.4 156-60-5 ND Trans-1,2-Dichloroethene 0.4 156-59-2 ND Cis-1,2-Dichloroethene 0.5 ND Chloroform 67-66-3 0.3 1,2-Dichloroethane 107-06-2 ND 0.5 1,1,1-Trichloroethane 71-55-6 ND 0.6 56-23-5 ND Carbon tetrachloride 0.7 75-27-4 ND Bromodichloromethane 0.5 78-87-5 ND 1,2-Dichloropropane 0.5 Cis-1,3-Dichloropropene 10061-01-5 ND ND 0.3 79-01-6 Trichloroethene 0.6 Dibromochloromethane 124-48-1 ND

79-00-5

10061-02-6

Not detected at or above limit of detection ND Information not available or not applicable



Page 7 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-19

Date Sampled:

03/06/92

Lab Number:

9203086-03C

Date Received:

03/06/92

Sample Matrix/Media: Analytical Method:

WATER EPA 601 Date Analyzed: 03/09/92

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	ued)		-
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%)LCLUCL
Bromochloromethane	74-97-5	116	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 8 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-20

Date Sampled:

03/06/92

Lab Number:

9203086-04C

Date Received:

03/06/92

Sample Matrix/Media:

WATER

Date Analyzed:

03/09/92

Limit of

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ИD	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ИD	0.4
Chloroform	67-66 - 3	ND	0.5
1,2-Dichloroethane	107-06-2	ИD	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23 - 5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection ND Information not available or not applicable



Page 9 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-20

Date Sampled:

03/06/92

Lab Number:

9203086-04C

Date Received:

03/06/92

Sample Matrix/Media:

WATER

Date Analyzed:

03/09/92

Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	111	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 10 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-21

Date Sampled:

03/06/92

Lab Number:

Date Received:

03/06/92

9203086-05C WATER

Date Analyzed:

03/09/92

Sample Matrix/Media: Analytical Method:

EPA 601

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection $% \left(\frac{\partial f}{\partial x}\right) =\int_{0}^{\infty }dx^{2}dx$ ND Information not available or not applicable



Page 11 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-21

Date Sampled:

03/06/92

Lab Number:

9203086-05C

Date Received: Date Analyzed: 03/06/92 03/09/92

Sample Matrix/Media:

WATER **EPA 601**

Analytical Method: Limit of Detection Concentration (ug/L) CAS # (ug/L) Analyte Purgeable Halocarbons (continued) 2-Chloroethylvinylether 110-75-8 ND 1 0.7 75-25-2 ND Bromoform ND 0.5 Tetrachloroethene 127-18-4 0.5 ND 79-34-5 1,1,2,2-Tetrachloroethane 0.7 ND 108-90-7 Chlorobenzene 2 1,3-Dichlorobenzene 541-73-7 ND 4 1,2-Dichlorobenzene 95-50-1 ND 4 1,4-Dichlorobenzene 106-46-7 ND 1 75-71-8 ND Dichlorodifluoromethane 0.4 Trichlorofluoromethane 75-69-4 ND 0.6 Freon 113 76-13-1 ND QC Limits (%) Recovery (%) LCL UCL Surrogates 50 - 150Bromochloromethane 74-97-5 115

Not detected at or above limit of detection ND Information not available or not applicable



of 19 Page 12

03/09/92

Results of Analysis for Harsch Investments

38379.00 Client Reference: Clayton Project No. 92030.86

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203086-07A

Date Received:

WATER

Date Analyzed:

Sample Matrix/Media: Analytical Method:

EPA 601

Limit of Concentration Detection (ug/L) CAS # (ug/L) Analyte Purgeable Halocarbons ND 0.6 Chloromethane 74-87-3 0.7 74-83-9 ND Bromomethane 0.5 ND 75-01-4 Vinvl chloride 0.5 75-00-3 ND Chloroethane 2 75-09-2 ND Methylene chloride 0.2 ND 1,1-Dichloroethene 75-35-4 ND 0.4 75-35-3 1,1-Dichloroethane 0.4 ND 156-60-5 Trans-1,2-Dichloroethene 0.4 ND Cis-1,2-Dichloroethene 156-59-2 0.5 67-66-3 ND Chloroform 0.3 107-06-2 ND 1,2-Dichloroethane 71-55-6 ND 0.5 1,1,1-Trichloroethane 0.6 ND Carbon tetrachloride 56-23-5 0.7 ND 75-27-4 Bromodichloromethane 0.5 1,2-Dichloropropane 78-87-5 ND 0.5 10061-01-5 ND Cis-1,3-Dichloropropene ND 0.3 Trichloroethene 79-01-6 0.6 ND Dibromochloromethane 124-48-1 0.6 ND 1,1,2-Trichloroethane 79-00-5 Trans-1,3-Dichloropropene 10061-02-6 ND 0.6

Not detected at or above limit of detection ND Information not available or not applicable



Page 13 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203086-07A

Date Received: Date Analyzed:

03/09/92

Sample Matrix/Media:

WATER

EPA 601 Analytical Method:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	neg)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
C		Recovery (%)	QC Limits (%) LCL UCL
Surrogates		vecovery (2)	<u> </u>
Bromochloromethane	74-97-5	117	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



Page 14 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification:	MW-17	Date Sampled:	03/06/92
Lab Number:	9203086-01A	Date Received:	

Sample Matrix/Media: WATER Date Prepared: 03/11/92
Preparation Method: EPA 5030 Date Analyzed: 03/11/92
Analytical Method: EPA 8015/8020

Analytical Method.		<u></u>	Limit of
Analyte	CAS #	Concentration (ug/L)	Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes		ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline		ND	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluene	98-08-8	109	50 - 150

ND Not detected at or above limit of detection -- Information not available or not applicable



Page 15 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-18

Date Sampled:

ND

110

RECOVERY (%)

03/06/92

Lab Number:

Gasoline

SURROGATE

a,a,a-Trifluorotoluene

9203086-02A

Date Received:

03/06/92

Sample Matrix/Media: Preparation Method:

WATER

Date Prepared:

03/11/92

50

LIMITS (%)

50 - 150

Analytical Method:

EPA 5030 EPA 8015/8020 Date Analyzed:

03/11/92

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)		
BTEX/Gasoline					
Benzene	71-43-2	ND	0.4		
Toluene	108-88-3	ND	0.3		
Ethylbenzene	100-41-4	ND	0.3		
p,m-Xylenes		ND	0.4		
o-Xylene	95-47-6	ND	0.4		

_--

98-08-8

Not detected at or above limit of detection ND Information not available or not applicable



Page 16 of 19

Results of Analysis for Harsch Investments

38379.00 Client Reference: Clayton Project No. 92030.86

Sample Identification: MW-19

03/06/92 Date Sampled:

Lab Number:

9203086-03A

03/06/92

Sample Matrix/Media:

WATER

Date Received: Date Prepared: 03/11/92

Preparation Method:

EPA 5030

Date Analyzed: 03/11/92

Analytical Method:

EPA 8015/8020

Analyte	CAS #	Limit of Detection (ug/L)	
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes		ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline		ND	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluene	98-08-8	110	50 - 15

Not detected at or above limit of detection ND Information not available or not applicable



Page 17 of 19

Results of Analysis for Harsch Investments

38379.00 Client Reference: Clayton Project No. 92030.86

Sample Identification: MW-20

Date Sampled:

03/06/92

Lab Number:

9203086-04A

Date Received:

03/06/92

WATER

Date Prepared:

03/11/92 03/11/92

Sample Matrix/Media: Preparation Method:

EPA 5030

Date Analyzed:

Analytical Method:

EPA 8015/8020

Analyte	Concentration CAS # (ug/L)						
BTEX/Gasoline							
Benzene	71-43-2	ND	0.4				
Toluene	108-88-3	ND	0.3				
Ethylbenzene	100-41-4	ND	0.3				
p,m-Xylenes		ND	0.4				
o-Xylene	95-47-6	ND	0.4				
Gasoline		ND	50				
SURROGATE		RECOVERY (%)	LIMITS (%)				
a,a,a-Trifluorotoluene	98-08-8	110	50 - 150				

Not detected at or above limit of detection ND Information not available or not applicable



Page 18 of 19

Results of Analysis for Harsch Investments

Client Reference: 38379.00 Clayton Project No. 92030.86

Sample Identification: MW-21 Date Sampled: 03/06/92 Lab Number: 9203086-05A Date Received: 03/06/92

Sample Matrix/Media: WATER Date Prepared: 03/11/92
Preparation Method: EPA 5030 Date Analyzed: 03/11/92

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)		
BTEX/Gasoline					
Benzene	71-43-2	ND	0.4		
Toluene	108-88-3	ND	0.3		
Ethylbenzene	100-41-4	ND	0.3		
p,m-Xylenes		ND	0.4		
o-Xylene	95-47-6	ND	0.4		
Gasoline		ND	50		
SURROGATE		RECOVERY (%)	LIMITS (%)		
a,a,a-Trifluorotoluene	98-08-8	108	50 - 150		

ND Not detected at or above limit of detection -- Information not available or not applicable



Page 19 of 19

Results of Analysis for Harsch Investments

38379.00 Client Reference: Clayton Project No. 92030.86

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203086-07A

Date Received:

Sample Matrix/Media:

WATER EPA 5030 Date Prepared:

Preparation Method: Analytical Method:

EPA 8015/8020

03/11/92 Date Analyzed: 03/11/92

Analyte	CAS #	Concentration (ug/L)	- Limit of Detection (ug/L)			
BTEX/Gasoline						
Benzene	71-43-2	ND	0.4			
Toluene	108-88-3	ND	0.3			
Ethylbenzene	100-41-4	ND	0.3			
p,m-Xylenes		ND	0.4			
o-Xylene	95-47-6	ND	0.4			
Gasoline		ND	50			
SURROGATE		RECOVERY (%)	LIMITS (%)			
a,a,a-Trifluorotoluene	98-08-8	110	50 - 150			

Not detected at or above limit of detection ND Information not available or not applicable



REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only Page of	
Project No.	,
Batch No. 9203085	
Client No.	
Date Logged In 3/6/92 By Ron	
Client Joh No. 20279	

A	Marsh	ķ	McLennan	Company
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* Explanation of Preservative				Collected in the State of New York		ਰੱ				\times	//	/	/.			//			
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Authorized	Authorized by: Richard Solum (SAMPLES) Date 3-6-92 (Chent Signature Must Accompany Request)																		
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(404) 499-7500

22345 Roethel Drive Novi, MI 48375 (313) 344-1770

Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837 (201) 225-6040

400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144

1252 Quarry Lane Pleasanton, CA 94566 (415) 426-2600

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REQUEST FOR LABORATORY **ANALYTICAL SERVICES**

For Clayton Use Only Page of	•
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Project No.	٠.
Batch No. 9 203086	
Client No.	
Date Logged In 36/92 By RFZ	
Client Job No. 38279 00	

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(Client Signature Must Accompany				1											
Please return completed form and samples to one of	he Clayton Env	ironmental	Consultants, In	ic. labs	s listed l	oelow:		·····				T	DISTR	IBI ITIC	NN:
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22345 Roethel Drive

Raritan Center 160 Fieldcrest Ave. Novi, MI 48375 Edison, NJ 08837 (313) 344-1770 (201) 225-6040

400 Chastain Center Blvd., N.W. Suite 490

Kennesaw, GA 30144

(404) 499-7500

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6/90

1252 Quarry Lane P.O. Box 9019 Pleasanton, CA 94566 (510) 426-2600 Fax (510) 426-0106



April 1, 1992

Mr. Dariush Dastmalchi CLAYTON ENVIRONMENTAL CONSULTANTS, INC. 1252 Quarry Lane Pleasanton, CA 94566

> Client Ref. 39744.00 Clayton Project No. 92033.51

Dear Mr. Dastmalchi:

Attached is our analytical laboratory report for the samples received on March 31, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH

Michael Lynch for

Director, Laboratory Services

Western Operations

RHP/caa Attachments



Page 2 of 5

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92033.51

Sample Identification: MW-1

Lab Number: 9203

9203351-01A

Date Sampled: 03/31/92 Date Received: 03/31/92

Sample Matrix/Media:

WATER

Date Analyzed: 03/31/92

Analytical Method: EPA 601

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	6
Bromomethane	74-83-9	ND	7
Vinyl chloride	75-01-4	ND	5
Chloroethane	75-00-3	ND	5
Methylene chloride	75-09-2	ND	20
1,1-Dichloroethene	75-35-4	ND	2
1,1-Dichloroethane	75-35-3	ND	4
Trans-1,2-Dichloroethene	156-60-5	ND	4
Cis-1,2-Dichloroethene	156-59-2	62	4
Chloroform	67-66-3	ND	5
1,2-Dichloroethane	107-06-2	ND	3
1,1,1-Trichloroethane	71-55-6	ND	5
Carbon tetrachloride	56-23-5	ND	6
Bromodichloromethane	75-27-4	ND	7
1,2-Dichloropropane	78-87-5	ND	5
Cis-1,3-Dichloropropene	10061-01-5	ND	5
Trichloroethene	79-01-6	200	5 3 6
Dibromochloromethane	124-48-1	ND	
1,1,2-Trichloroethane	79-00-5	ND	6
Trans-1,3-Dichloropropene	10061-02-6	ND	6

ND Not detected at or above limit of detection

⁻⁻ Information not available or not applicable

a Detection limits increased due to dilution necessary for quantitation



of 5 Page 3

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92033.51

Sample Identification: MW-1

Date Sampled:

03/31/92 03/31/92

Lab Number:

9203351-01A

Date Received:

Sample Matrix/Media: Analytical Method:

WATER EPA 601

03/31/92 Date Analyzed:

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (continu	ued)		
2-Chloroethylvinylether	110-75-8	ND	10
Bromoform	75-25-2	ND	7
Tetrachloroethene	127-18-4	1,100	5 5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Chlorobenzene	108-90-7	ND	7
1,3-Dichlorobenzene	541-73-7	ND	20
1,2-Dichlorobenzene	95-50-1	ND	40
1,4-Dichlorobenzene	106-46-7	ND	40
Dichlorodifluoromethane	75-71-8	ND	10
Trichlorofluoromethane	75-69-4	ND	4
Freon 113	76-13-1	ND	6
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	75	50 - 150

ND Not detected at or above limit of detection Information not available or not applicable

a Detection limits increased due to dilution necessary for quantitation



Page 4 of 5

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92033.51

Sample Identification: METHOD BLANK

Date Sampled: Date Received:

Lab Number:

9203351-02A

Date Analyzed: 03/31/92

Sample Matrix/Media:

WATER

Analytical Method: EPA 601

Analyte	, CAS #	Concentration (ug/L)	-Limit of Detection (ug/L)
Purgeable Halocarbons			
Chloromethane	74-87-3	ND	0.6
Bromomethane	74-83-9	ND	0.7
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	2
1,1-Dichloroethene	75-35-4	ND	0.2
1,1-Dichloroethane	75-35-3	ND	0.4
Trans-1,2-Dichloroethene	156-60-5	ND	0.4
Cis-1,2-Dichloroethene	156-59-2	ND	0.4
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23 - 5	ND	0.6
Bromodichloromethane	75-27-4	ND	0.7
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.3
Dibromochloromethane	124-48-1	ND	0.6
1,1,2-Trichloroethane	79-00-5	ND	0.6
Trans-1,3-Dichloropropene	10061-02-6	ND	0.6

Not detected at or above limit of detection ND Information not available or not applicable



Page 5 of 5

Results of Analysis for Harsch Investments

Client Reference: 39744.00 Clayton Project No. 92033.51

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203351-02A

Date Received:

Sample Matrix/Media:

WATER

Date Analyzed: 03/31/92

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Analytical Method: E	EPA	601

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Purgeable Halocarbons (contin	ued)		
2-Chloroethylvinylether	110-75-8	ND	1
Bromoform	75-25-2	ND	0.7
Tetrachloroethene	127-18-4	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Chlorobenzene	108-90-7	ND	0.7
1,3-Dichlorobenzene	541-73-7	ND	2
1,2-Dichlorobenzene	95-50-1	ND	4
1,4-Dichlorobenzene	106-46-7	ND	4
Dichlorodifluoromethane	75-71-8	ND	1
Trichlorofluoromethane	75-69-4	ND	0.4
Freon 113	76-13-1	ND	0.6
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
Bromochloromethane	74-97-5	84	50 - 150

Not detected at or above limit of detection ND Information not available or not applicable



REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Pageol
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Batch No. 920	3351
Client No.	
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22345 Roethel Drive Novi, MI 48375 (313) 344-1770

Raritan Center 160 Fieldcrest Ave. Edison, NJ 08837 (201) 225-6040

400 Chastain Center Blvd., N.W. Suite 490 Kennesaw, GA 30144

(404) 499-7500

Pleasanton, CA 94566 (415) 426-2600

YELLOW - Clayton Accounting - Client Copy PINK

6/90

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: South Shore Shopping Center

Date: 3/12/92

Well No: MW-7

Sampling Team: Mike Springman

Sampling Method: Submersible pump and bailer

Field Conditions: Rainy

Describe Equipment Decontamination Before Sampling This Well:

Total Depth

of Well:

13.05 ft.

Time:

Depth to Water

Before Purging: 3.7 ft.

Volume

Height of

2-inch

4-inch

<u>Volume</u>

Purge <u>Factor</u>

To Purge

24.28 gals.

Water

Column: 9.35 ft.

.16

(.65

= 6.07 gals

4

Depth Purging From:

12 ft.

Time Purging Begins:

Notes on Initial Discharge:

Time	Volume Purged	рН	Conductivity	T Comments
1436	5	5	1,200	
1438	10	5.2	2,200	
1442	15	5.2	2,100	
1445	20	5.2	2,200	
1450	25	5.2	2,200	

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: South Shore Shopping Center

Date: 3/12/92

Well No: MW-8B

Sampling Team: Mike Springman

Sampling Method: Submersible pump and bailer

Field Conditions: Rainy

Describe Equipment Decontamination Before Sampling This Well:

Total Depth

of Well: 21.9 ft. Time:

Depth to Water

Before Purging:

5.45 ft.

Volume Height of

2-inch

<u>4-inch</u>

Volume

10.69 gals

Purge **Factor**

To Purge

Water

Column: 16.45 ft.

.16

4

42.76 gals.

Depth Purging From:

21 ft.

Time Purging Begins: 1328

Notes on Initial Discharge:

Time	Volume Purged	pΗ	Conductivity	T Comments
1330	10	6.0	1,200	Clear
1333	20	6.0	1,400	
1345	30	5.8	5,000+	
1355	40	5.8	5,000+	
1400	45	5	5,000+	

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: South Shore Shopping Center

Date: 3/12/92

Well No: MW-15

Sampling Team: Mike Springman

Sampling Method: Submersible pump and bailer

Field Conditions: Rainy

Describe Equipment Decontamination Before Sampling This Well:

Total Depth

of Well: 19.3 ft.

Time:

Depth to Water

Before Purging:

3.55 ft.

Volume Height of

<u>2-inch</u>

<u>4-inch</u>

<u>Volume</u>

Purge <u>Factor</u>

To Purge

10.08 gals.

Water

Column: 15.75 ft.

(16)

.65

= 2.52 gals

4

Depth Purging From: 5 ft.

Time Purging Begins:

Notes on Initial Discharge:

Time	Volume Purged	рH	Conductivity	T Comments :
	0	4.2	5.00 ms	Clear
	2	4.2	2.06 ms	Clear
	4	4.2	2.06 ms	Clear
	6	4.2	2.3 ms	
	8	4.2	2.4 ms	
	10	4.2	2.3 ms	

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: South Shore Shopping Center

Date: 3/12/92

Well No: MW-16

Sampling Team: Mike Springman

Sampling Method: Submersible pump and bailer

Field Conditions: Rainy

Describe Equipment Decontamination Before Sampling This Well:

Total Depth

30 ft. of Well:

1135 Time:

Depth to Water

6.3 ft. Before Purging:

Volume

Height of

<u>2-inch</u>

4-inch

<u>Volume</u>

Purge Factor 1

To Purge

Water

Column: 23.7 ft.

.65

3.79 gals

X4

15.16 gals.

Depth Purging From:

ft.

Time Purging Begins:

Notes on Initial Discharge: Sulfur smell

Time	Volume Purged	рН	Conductivity	T Comments
	1	4.8	>20 ms	Strong sulfur smell
	4	4.8	>20 ms	Strong sulfur smell
	6	4.8	>20 ms	Strong sulfur smell
	10	4.8	>20 ms	Strong sulfur smell
	12	4.8	>20 ms	Strong sulfur smell
	15	4.8	>20 ms	

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: Harsch

Date: 3/6/92

Well No: MW-17

Sampling Team: Richard Silva

Sampling Method: Disposable bailer for purging and sampling

Field Conditions: Partly cloudy, slight breeze, ~60°

Describe Equipment Decontamination Before Sampling This Well:

N/A

Total Depth

of Well:

24.84 ft.

Time:

0945

Depth to Water

Before Purging:

3.48 ft.

Volume Height of

<u>2-inch</u>

<u>4-inch</u>

<u>Volume</u>

Purge <u>Factor</u>

To Purge

Water

Column: 21.36 ft.

(.16

.65

= 3.42 gals

4

13.67 gals.

Depth Purging From:

ft.

Time Purging Begins: 0950

Notes on Initial Discharge: Silty, grayish, murky water

Time	Volume Purged	pH	Conductivity	T	Comments
1000	4	6.0	5,000+	18.9°C	Silty, grayish
1010	8	6.0	5,000+	18.9°C	Silty, grayish
1018	12	6.0	5,000+	18.9°C	Silty, grayish
1026	16	6.0	5,000+	18.9°C	Silty, grayish

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM (CONTINUED)

Time Field Parameter Measurement Begins: 1045

	Rep #1 Rep #2 Rep #3 Rep #4					
рН	6.0	6.1	60	6.0		
Conductivity	5,000+	5,000+	5,000+	5,000+		
T℃	19.4	19.4	19.4	19.4		

<u>Pre-Sample Collection Gallons Purged</u>: 16

Time Sample Collection Begins: 1035

Time Sample Collection Ends: 1040

Total Gallons Purged: 17

Comments:

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: Harsch

Date: 3/6/92

Well No: MW-18

Sampling Team: Richard Silva

Sampling Method: Disposable bailer for purging and sampling

Field Conditions: Partly cloudy, slight breeze, ~60°

Describe Equipment Decontamination Before Sampling This Well:

N/A

Total Depth

24.80 ft. of Well:

Time:

1105

Depth to Water

Before Purging:

9.76 ft.

Volume

Height of Water

2-inch

4-inch

Volume

Purge Factor 1

To Purge

Column: 15.04 ft.

.65

2.41 gals

9.63 gals.

Depth Purging From:

ft.

Time Purging Begins: 1115

Notes on Initial Discharge: Silty, grayish, murky water

Time	Volume Purged	рН	Conductivity	T	Comments
1119	3	6.2	5,000+	20.0°C	Silty, grayish
1125	6	6.1	5,000+	20.0°C	Silty, grayish
1137	9	6.1	5,000+	20.0°C	Silty, grayish
1144	12	6.0	5,000+	20.0°C	Silty, grayish

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM (CONTINUED)

Time Field Parameter Measurement Begins: 1204

	Rep #1	Rep #2	Rep #3	Rep #4
pН	6.2	6.1	6.2	6.2
Conductivity	5,000+	5,000+	5,000+	5,000+
T°C	20.0	20.0	20.0	20.0

<u>Pre-Sample Collection Gallons Purged</u>: 12

Time Sample Collection Begins: 1154

Time Sample Collection Ends: 1201

Total Gallons Purged: 13

Comments:

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: Harsch

Date: 3/6/92

Well No: MW-19

Sampling Team: Richard Silva

Sampling Method: Disposable bailer for purging and sampling

Field Conditions: Partly cloudy, slight breeze, ~60°

Describe Equipment Decontamination Before Sampling This Well:

N/A

Total Depth

of Well:

24.76 ft.

Time:

1230

Depth to Water

Before Purging:

4.86 ft.

Volume Height of

<u>2-inch</u>

4-inch

Volume

Purge To Purge Factor

Water

Column: 19.9 ft.

.65

3.18 gals

12.74 gals.

Depth Purging From:

ft.

Time Purging Begins: 1233

Notes on Initial Discharge: Silty, grayish, murky water

nments	Come	T	Conductivity	pH	Volume Purged	Time
	Silty, grayish	19.4°C	5,000+	6.1	3	1245
	Silty, grayish	19.4°C	5,000+	6.2	6	1251
	Silty, grayish	19.4°C	5,000+	6.2	9	1258
	Silty, grayish	19.4°C	5,000+	6.2	12	1304
	Silty, grayish	19.4°C	5,000+	6.2	12	1304

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM (CONTINUED)

Time Field Parameter Measurement Begins: 1325

	Rep #1 Rep #2 Rep #3 Rep #4					
pH	6.2	6.2	6.3	6.3		
Conductivity	5,000+	5,000+	5,000+	5,000+		
T°C	19.4	19.4	19.4	19.4		

<u>Pre-Sample Collection Gallons Purged</u>: 12

Time Sample Collection Begins: 1315

Time Sample Collection Ends: 1320

Total Gallons Purged: 13

Comments:

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: Harsch

Date: 3/6/92

Well No: MW-20

Sampling Team: Richard Silva

Sampling Method: Disposable bailer for purging and sampling

Field Conditions: Partly cloudy, slight breeze, ~60°

Describe Equipment Decontamination Before Sampling This Well:

N/A

Total Depth

of Well:

24.98 ft.

Time:

1330

Depth to Water

Before Purging:

6.28 ft.

Volume Height of

<u>2-inch</u>

4-inch

Volume

Purge **Factor**

To Purge

Water

Column: 18.70 ft.

.65

2.99 gals

11.97 gals.

Depth Purging From:

ft.

Time Purging Begins: 1338

Notes on Initial Discharge: Silty, grayish, murky water

Time	Volume Purged	pH	Conductivity	T	Comments
1347	3	6.2	5,000+	19.4°C	Silty, grayish
1355	6	6.2	5,000+	19.4°C	Silty, grayish
1403	9	6.1	5,000+	19.4°C	Silty, grayish
1412	12	6.2	5,000+	19.4°C	Silty, grayish

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM (CONTINUED)

Time Field Parameter Measurement Begins: 1440

	Rep#1 Rep#2 Rep#3 Rep#4					
pН	6.3	6.3	6.1	6.1		
Conductivity	5,000+	5,000+	5,000+	5,000+		
T°C	19.4	19.4	19.4	19.419.4		

Pre-Sample Collection Gallons Purged: 12

Time Sample Collection Begins: 1430

Time Sample Collection Ends: 1435

Total Gallons Purged: 13

Comments:

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM

Job No: 39744.00

Site: Harsch

Date: 3/6/92

Well No: MW-21

Sampling Team: Richard Silva

Sampling Method: Disposable bailer for purging and sampling

Field Conditions: Partly cloudy, slight breeze, ~60°

Describe Equipment Decontamination Before Sampling This Well:

N/A

Total Depth

of Well: 24.96 ft.

Time: 1455

Depth to Water

Before Purging:

6.26 ft.

Volume

Height of

<u>2-inch</u> <u>4-inch</u>

Volume

Purge <u>Factor</u>

To Purge

Water

Column: 18.70 ft.

(16)

.65

= 2.99 gals

4

11.97 gals.

Depth Purging From:

ft.

Time Purging Begins: 1500

Notes on Initial Discharge: Silty, grayish, murky water

Time	Volume Purged	pH	Conductivity	T	Comments
1508	3	7.2	5,000+	18.9°C	Silty, grayish
1516	6	7.2	5,000+	18.9°C	Silty, grayish
1524	9	7.1	5,000+	18.9°C	Silty, grayish
1531	12	7.2	5,000+	18.9°C	Silty, grayish

CLAYTON ENVIRONMENTAL CONSULTANTS, INC. WATER SAMPLING FIELD SURVEY FORM (CONTINUED)

Time Field Parameter Measurement Begins: 1555

	Rep #1	Rep #2	Rep #3	Rep #4
pH ,	7.2	7.1	7.2	7.2
Conductivity	5,000+	5,000+	5,000+	5,000+
T℃	18.9	18.9	18.9	18.9

<u>Pre-Sample Collection Gallons Purged</u>: 12

Time Sample Collection Begins: 1540

Time Sample Collection Ends: 1545

Total Gallons Purged: 13

Comments: